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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,575	05/10/2002	Michel Bremont	RAG-14302/08	4825
25006	7590	04/22/2004	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE ANDERSON & CITKOWSKI, PC 280 N OLD WOODARD AVE SUITE 400 BIRMINGHAM, MI 48009			MAKI, STEVEN D	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 04/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/088,575	BREMONT ET AL.
	Examiner Steven D. Maki	Art Unit 1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 September 2002.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 7-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 7-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>103002</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

- 1) The substitute specification filed 9-16-02 has not been entered since a marked up version of the specification as filed has not been received.
- 2) The disclosure is objected to because of the following informalities: page 2 of the specification refers to the claims. The reference to the claims should be appropriately removed from the specification.

Appropriate correction is required.

- 3) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 4) Claims 7, 9-11, 14 and 16-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claims 7, 9-11, 14 and 16-18, subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the *omission* of the subject matter of the solid ring of adhesive being a hot melt type adhesive. The original disclosure repeatedly describes the adhesive as being a hot melt type adhesive. See page 1 lines 29-36, page 3 lines 13-16, page 4 lines 3-7 of the original specification, lines 9-10 of original claim 1 and original abstract. The original disclosure fails to describe and enable using any other

type of adhesive to form the ring and thereby fails to reasonably convey omitting the use of a hot melt type adhesive. This conclusion is consistent with the International Preliminary Examination Report (the PCT 409 supplied by applicant) in which the European examiner commented that qualifying the feature of the hot melt type adhesive compacted as a solid ring with "preferably" and thereby indicating its use as optional "...introduces substantive matter that, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the International application as filed".

- 5) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 6) Claims 7, 9-11 and 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 7, 9-11, 14 and 16-18, the scope and meaning of "solid ring of adhesive" (claims 7, 14 and 18) is unclear; it being noted that the original disclosure provides no guidance as to the scope and meaning of this phrase if a hot melt type adhesive is not used. In other words, one of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by the language of "a solid ring of adhesive" per se. For example, it is unclear if "solid ring adhesive" reads on a hardened thermosetting adhesive which cannot be melted with heat. If not, why not?

In claims 14 and 18, there is no antecedent basis for "said free end". The following changes are suggested: (1) in claim 14 line 12, change "said free end" to --a

free end--; (2) in claim 16 line 2 change "a free end" to --said free end-- and (3) in claim 18 line 14 change "said free end" to --a free end--.

7) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Gadsden et al

9) **Claims 7-8 and 14-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gadsden et al (US 4896904).**

In figure 12, Gadsden et al discloses a "tubular coupling element" comprising a heat recoverable skirt 27 and a tube 25 which are joined to define an annular gap in which a solid ring of fusible epoxy adhesive is located. Since the skirt 27 was formed from a connector device similar to that shown in figure 1, one of ordinary skill in the art would readily understand that the inner surface of skirt 27 is provided with hot melt adhesive 2.

As to claims 7 and 8, the claimed tubular coupling element is anticipated by the "tubular coupling element" shown in figure 12. The claimed inner tube reads on tube

25. The claimed connecting wall reads on the skirt 27's inclined portion, which defines the size of the annular gap. The claimed outer tube reads on the remainder of skirt 27. The claimed solid ring of adhesive reads on the solid ring of fusible epoxy adhesive. Alternatively, the solid ring of adhesive reads on the hot melt adhesive of the figure 12 embodiment. In any event: It would have been obvious to one of ordinary skill in the art to provide the inner surface of skirt 27 with hot melt adhesive 2 (a "solid ring of adhesive") since Gadsen et al teaches that the skirt of the figure 12 embodiment was formed from the connector device of the figure 1 embodiment which includes a "ring" of hot melt adhesive 2.

As to claims 14 and 15, Gadsen et al teaches pushing a pipe into the annular gap and recovering the skirt using heat. During application of heat, the epoxy adhesive and the hot melt adhesive melt.

10) Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gadsen et al as applied above and further in view of Evans (US 3910448) and Brooks (US 4092193).

As to claims 16 and 17, it would have been obvious to one of ordinary skill in the art to preheat the free end of the pipe with an induction coil as claimed and insert the preheated pipe end in the annular space defined by the heat recoverable skirt 27 and tube 25 of the figure 12 coupling element since (1) Evans, also directed to joining heat recoverable material using meltable adhesive, suggests preheating a flange 8 of a closure member 7 so that upon insertion in an annular space, which like that of Gadsen et al contains adhesive, the heat from the flange causes the heat recoverable material

defining the annular space 5 to recover and to cause the adhesive to melt and (2) Brooks, also directed to joining tubular members using melttable adhesive, teaches that induction heating may be used to melt adhesive (co.. 8 lines 5-20).

Nakashiba et al

11) Claims 7-8 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakashiba et al.

Nakashiba et al discloses an electrofusion joint ("tubular coupling element), for joining tubular members / pipes 15, 16 comprising an "outer tube", a "connecting wall", an "inner tube" (support) 23, and a solid ring 13 of non-crosslinked polyolefin arranged in an "annular gap" between the "outer tube" and the "inner tube". See figure 4.

In claims 7 and 8, the claimed solid ring of adhesive reads on the solid ring of noncrosslinked polyolefin since it is used to fuse (bond) the joint to the pipes.

As to claims 14-15, heat is used to melt the polyolefin ring 13. Claim 14 does not require applying heat and then inserting.

12) Claims 7-8 and 14-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashiba et al in view of Harget et al (WO 98/53241).

Nakashiba et al is considered to anticipate claims 7-8 and 14-15. In any event: It would have been obvious to use a solid ring of *hot melt* adhesive for the solid ring of thermoplastic material in the figure 4 coupling element since Harget et al, also directed to a heat fusion fitting, teaches that the non-crosslinked material may be a *hot melt* adhesive (see page 14).

13) Claims 9-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashiba et al in view of Harget et al (WO 98/53241) as applied above and further in view of Europe '831 (EP 289831) and optionally Great Britain '496 (GB 2133496).

As to claims 9-10 and 12-13, it would have been obvious to one of ordinary skill in the art to provide the tubular surface of the inner and /or outer tube of Nakashiba et al's figure 4 coupling element with longitudinal ribs separated longitudinal grooves in view of (1) Europe '831's suggestion to provide a tubular surface of a tube of tubular coupling element with longitudinal ribs (separated by longitudinal grooves) to ensure centering of a pipe end in the coupling element and to ensure a constant adhesive thickness and optionally (2) Great Britain '496's teaching to provide the tubular surface of an inner tube and/or outer tube of a coupling element with grooves to control glue line thickness (page 2 lines 7-9, 25-26).

14) Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashiba et al in view of Harget et al (WO 98/53241) as applied above and further in view of German '299 (DE 2603299).

As to claim 11, it would have been obvious to one of ordinary skill to provide the "inner tube" of Nakashiba et al's figure 4 coupling element such that it is longer than the outer tube since German '299 suggests using a longer "inner tube" than "outer tube" for a coupling element, which like that of Nakashiba et al defines an annular gap for receiving a free pipe end. The limitation of the length of the outer tube being approximately equal to an outside diameter of the fluid line would have been obvious

and could have been determined without undue experimentation in view of Nakashiba et al's teaching to secure the pipe end in the annular space defined by the "outer tube" and "inner tube" of the coupling element.

Allowable Subject Matter

- 15) **Claim 18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.**

As to claim 18, the prior art of record fails to suggest modifying Nakashiba et al "... such that said free end contacts said ring of adhesive and a small portion of said adhesive is pressed between said fluid line and said inner tube and a predominant portion of said adhesive is pressed between said fluid line and said outer tube"

(emphasis added).

Remarks

- 16) The remaining references are of interest.

- 17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
April 18, 2004

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4-18-04